

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in this application.

LISTING OF CLAIMS

1. (Currently Amended) An implantable electrode lead having a distal end provided with at least one electrode to be implanted in a predetermined portion of a living body in order to perform at least one of transmission of an electrical stimulation pulse to a living body and sensing of an electrical signal from the living body, a proximal end provided with connecting means having at least one connecting terminal to be connected to an implantable medical instrument, and a lead body provided between said distal end and said proximal end and adapted to electrically connect said at least one electrode to said at least one connecting terminal,

said lead body comprising a helical parallel coil of a plurality of conductive wires respectively having different properties and insulated from each other, wherein said helical parallel coil is made by rolling the plurality of conductive wires in parallel with the same diameter so that the plurality of conductive wires are next to each other, and

said plurality of conductive wires electrically connecting said at least one electrode to said at least one connecting terminal in parallel so as to form a parallel circuit.

2. (Previously Presented) The implantable electrode lead according to claim 1, wherein said different properties include different electrical resistances and different mechanical properties.

3. (Previously Presented) The implantable electrode lead according to claim 1, wherein each of said plurality of conductive wires is a conductive wire with a single layer made of at least one metal material, or a composite conductive wire with a plurality of different single layers made of at least one metal material.

4. (Previously Presented) The implantable electrode lead according to claim 3, wherein said composite conductive wire with said plurality of different single layers has a clad structure obtained by covering a first single layer with a second single layer among said plurality of types of single layers.

5. (Previously Presented) The implantable electrode lead according to claim 1, wherein said plurality of conductive wires are made of different materials.

6. (Previously Presented) The implantable electrode lead according to claim 1, wherein among said plurality of conductive wires, a first conductive wire has an electrical resistivity of not more than $5\ \mu\Omega\cdot\text{cm}$ and a second conductive wire has an electrical resistivity of not less than $5\ \mu\Omega\cdot\text{cm}$.

7. (Previously Presented) The implantable electrode lead according to claim 3, wherein said composite conductive wire has a first single layer made of a metal material or alloy material with an electrical resistivity of not more than $5\ \mu\Omega\cdot\text{cm}$

and a second single layer made of a metal material or alloy material with an electrical resistivity of not less than $5 \mu\Omega \cdot \text{cm}$.

8. (Previously Presented) The implantable electrode lead according to claim 3, wherein said first and second single layers of said composite conductive wire contain silver and a cobalt alloy, respectively.

9. (Canceled)

10. (Currently Amended) An implantable medical instrument using an implantable electrode lead having at least one electrode to be implanted in a predetermined portion of a living body and a lead body to electrically connect said at least one electrode to at least one connecting terminal of said instrument,

said lead body comprising a helical parallel coil of a plurality of conductive wires respectively having different properties and insulated from each other, wherein said helical parallel coil is made by rolling the plurality of conductive wires in parallel with the same diameter so that the plurality of conductive wires are next to each other,

said plurality of conductive wires electrically connecting said at least one electrode to said at least one connecting terminal in parallel so as to form a parallel circuit, and

said implantable medical instrument has informing means for determining that at least one of said plurality of conductive wires is damaged based on conductivity

between said at least one electrode and said at least one connecting terminal, and for informing of the damage.

11. (Previously Presented) The implantable medical instrument according to claim 10, further having measuring means for measuring a motion state or posture of the living body where said electrode is implanted.

12. (Previously Presented) The implantable medical instrument according to claim 10, wherein said informing means measures a parameter that changes on the basis of a change in total electrical resistance of said plurality of conductive wires, compares the parameter with a preset reference parameter, and informs that at least one of said plurality of conductive wires is fractured when the parameter that changes is smaller than the reference parameter.

13. (Previously Presented) The implantable medical instrument according to claim 12, wherein the parameter includes either one of current, frequency, and time.

14. (Previously Presented) The implantable medical instrument according to claim 11, wherein said measuring means further has acceleration sensor means for measuring an acceleration, and measures the motion state or posture of the living body on the basis of a measurement result of said acceleration sensor means.

15. (Previously Presented) The implantable medical instrument according to claim 11, said implantable medical instrument further has storage means, and when

a measurement result obtained by said measuring means satisfies a predetermined condition, the measurement result is recorded in said storage means.

16. (Canceled)

17. (Previously Presented) The implantable medical instrument according to claim 10, wherein said different properties include different electrical resistances and different mechanical properties.